

## DEPARTMENT OF PHILOSOPHY

University of Toronto TORONTO 181, CANADA

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Professor Joshua Lederberg, Department of Genetics, Stanford University School of Medicine, Stanford, California 94305. U.S.A.

Dear Professor Lederberg:

Thank you for your very kind letter and your interesting comments about my book. If I were writing it now, I should certainly put a number of matters differently, and I would certainly have to take account of the recent remarkable work in molecular genetics, some of which I have tried to keep up with as well as a layman can. I found your encyclopedia article on the gene especially enlightening. It was good of you to enclose a copy of it and of the paper on exobiology, which I recall reading with pleasure when it first appeared. The point you make in your letter that that genetic stability is under genetic control and that the rarity of mutations is an evolved adaptation struck me as apt and important. I have never seen the point made in that way before.

I am glad you did not object to my claim in the book that evolutionary theory has a historical dimension which is not to be ignored. This claim has encountered quite a bit of criticism from philosophers of science who have a strongly logical positivist orientation. They particularly object to my attempt to show that Neo-Darwinian theory embodies historical explanations which are structurally different from the nomological-deductive explanations which it also embodies. For them, n-d explanations are the only genuinely scientific variety. This is a basic article of faith which they hold with great tenacity. If you care to look at this line of attack on my claim, you might look at a recent book, Philosophy of Biology, by Michael Ruse (a former student!). I have reviewed it in the March issue of Dialogue, a Canadian philosophical journal. Michael and I have had many arguments about the whole matter, both in private and at philosophical congresses.

Philosophy of biology still interests me deeply, and I have published some other things on it since my book. When I return to my university office (you letter has reached me on vacation), I will send you a few off-prints of them. At the moment I am writing a book on Darwin for a series being issued by Routledge, Kegan Paul, and this has set me to reading and re-reading the literature of this fascinating period in the history of biology.

With all good wishes.

Yours\_sincerely, Thomas A. Goudge Thomas A. Goudge Professor of Philosophy